

ABSTRACT OF THE DISCLOSURE

A first metal film, a first interlayer insulating film, a second metal film, and a second interlayer insulating film are deposited in this order over a silicon nitride film. An opening penetrating the first and second interlayer insulating films and the first and second metal films is created, whereby a contact metal, to hold a to-be-formed lower electrode thereon, is exposed. A metal film is provided to cover the second interlayer insulating film. The opening is filled with the metal film. A main part and the uppermost fin (namely, the fin farthest from a substrate) of a lower electrode, are formed by the same process.